REMARKS

Claims 1-12 are presently under examination.

Rejection under 35 U.S.C. § 103

Claims 1-12 are rejected under 35 U.S.C. § 103 as obvious over Lang, Keetch, Fulmer, Robinette, and Royston in view of Goto. The Office Action states that it would have been obvious to combine the teachings of Lang of administering an irritant to prostate to develop a model of prostatitis with the teachings of Keetch, Fulmer and Robinette of administering other compositions to develop a model of prostatitis, with the teachings of Royston that HCl acts as a non-specific irritant, and with the teachings of Goto of administering HCl in developing a model of prostatitis.

Applicants submit that the claimed nonbacterial prostatitis animal model is not obvious over the claimed references because no combination of these teachings would lead one to the presently claimed nonbacterial prostatitis model. The presently claimed invention exhibits prostate tissue damage characteristically observed in human chronic nonbacterial prostatitis and a lower urinary tract disorder characteristically observed in human chronic nonbacterial prostatitis, without urethral damage such as urethral occlusion. Such model can be reliably prepared without severe tissue damage or death of the animal. As such, this model is distinct from any combination of the cited references.

As discussed below, no combination of the references would lead to the claimed animal model because (a) no combination of references would indicate how to modify Lang's administration methods in order to develop the claimed invention, and (b) no combination of references teaches that HCl would be a suitable compound for use in developing the claimed invention.

Lang's Administration Methods

Lang teaches that administration of DNBS as an "irritant" displayed little or no inflammation when administered to rat prostate. *Lang* at Abstract. Lang teaches that administration of DNBS with ethanol resulted in severe tissue damage and, typically, death, when administered to rat prostate. *Lang* at paragraph bridging pages 202-203. Lang does not teach any manner for reliably generating nonbacterial prostatitis animal models. Lang does not teach any manner for modifying the administration methods in order to reduce tissue damage and death.

The Office Action states that Lang's methods can be modified according to Keetch's teachings that the level of tissue damage and involvement is titratable.

Keetch

Keetch's teachings suggest that for prostatitis animal models, tissue involvement is not titratable. Keetch teaches that different injected concentrations of tissue homogenate/toxin cause a binary response: either no inflammation at all resulted, or inflammation resulted, with no distinction in the inflammation caused by different dosages. Specifically, dosage of 250 μg/ml yielded no inflammation, and dosages of 500 μg/ml or 750 μg/ml resulted in either no inflammation or inflammation, depending on the strain. *Keetch* at page 248, second full paragraph. Histological characterization did not distinguish degrees of tissue involvement based on dosage amount. *Keetch* at page 248, third full paragraph.

The Office Action states that Keetch "demonstrates that higher concentrations of irritant resulted in greater tissue involvement of other tissue such as the neighboring tissues of the urethra and bladder." *Office Action* at page 5. However, Keetch provides no indication that the degree tissue involvement is concentration-related. Keetch only teaches that lower concentrations of tissue homogenate/toxin cause no response, while higher concentrations cause a response. There is no indication in Keetch that lower concentrations result in inflammation of a lesser degree while higher concentrations result in inflammation of a greater degree. In fact, Keetch suggests the opposite – concentration is not titratable, it results in an either/or response in which inflammation either does or does not occur, with the degree of inflammation not being titratable by the amount administered.

If anything, the teachings of Keetch would suggest to those of ordinary skill that the severe tissue damage and death caused by Lang's method would not be avoidable because concentrations below a threshold amount would result in no inflammation while concentrations above a threshold amount would result in the severe tissue damage and death described by Lang. As such, if anything,

Keetch is evidence that those of ordinary skill would not consider Lang's method as capable of being modified to arrive at a suitable result, such as that of Applicants' claims. Accordingly, the evidence shows that one of ordinary skill would not know how to modify the teachings of Lang in order to develop a suitable animal prostatitis model.

The Remaining References

Fulmer, Robinette, Royston and Goto do not teach one of ordinary skill how to modify Lang's methods in order to develop a suitable animal prostatitis model. These references provide either no specific teachings on point, or provide teachings consistent with Keetch, as discussed above. As such, these references provide no additional teaching over the above-discussed teachings of Lang and Keetch. Therefore, the combination of all references shows that one of ordinary skill would not know how to modify the teachings of Lang in order to develop a animal prostatitis model in accordance with Applicants' claims. Accordingly, the references, alone or combined, do not render the claimed invention obvious.

HCl as an Agent for Preparing an Animal Prostatitis Model

Lang teaches administration of DNBS as an "irritant" in attempting to induce prostatitis. Lang provides no general teachings of the properties of the "irritant," and the only comparable "irritant" mentioned by Lang is TNBS. *Lang* at paragraph spanning pages 204-205. Both DNBS and TNBS are well-known haptens. Thus, Lang's "irritant" is directed to molecules that can elicit an antigen-specific immune response. Lang does not teach that HCl is a comparable "irritant" that could be used interchangeably with DNBS or TNBS. Lang provides no reason for one of ordinary skill to believe that anything other than a hapten would be a suitable substitute for DNBS. As such, nothing in Lang would lead to the conclusion that HCl would be appropriate for use in Lang's methods.

The Office Action states that Goto and Royston teach that HCl is a comparable non-specific irritant that can be applied to Lang's methods.

Goto

Goto teaches that HCl makes no difference in developing a prostatitis model. Specifically, Goto teaches that bacterial prostatitis models were formed regardless of whether or not HCl was used. *Goto* at Abstract. In fact, Goto teaches that injection "with the bacterial solution without any

[HCl] pretreatment [provided] bacterial infection similar to the case of human prostatitis." *Goto* at Abstract. Thus, if anything, Goto teaches that human-like prostatitis animal models are best formed when HCl is not used. As such, Goto teaches that HCl is of no use in establishing a prostatitis model, and, if anything, is deleterious in establishing a suitable human-like prostatitis model. Further, Goto does not teach that HCl's biological effects are similar to that of haptens such as DNBS or TNBS. Thus, nothing in Goto would lead one of ordinary skill to substitute HCl for Lang's DNBS in attempting to create an animal prostatits model. If anything, the teachings of Goto would indicate that there is no reasonable expectation of success in using HCl to develop an animal prostatitis model.

Royston

Royston teaches that HCl initiates severe inflammatory response in rat lung. Royston is silent regarding any effect of HCl on prostate. Royston is silent regarding whether or not HCl's biological effects are similar to that of haptens such as DNBS or TNBS. No evidence of record establishes that compounds causing inflammatory response in rat lung are also useful for causing tissue damage in prostate. In contrast, the evidence of record provided in Goto teaches that HCl is of no use in establishing a prostatitis model. Nothing in Royston would lead to a contrary conclusion on the effect of HCl on prostate. The teachings of Royston on rat lung inflammation cannot supersede Goto's teachings on prostatitis animal model formation. As such, insofar as Royston is inconsistent with Goto, Royston is not applicable to the present rejection.

The Remaining References

Keetch, Fulmer and Robinette do not teach substitution of HCl for a hapten. None of these methods use any compound similar to HCl. If anything, these references, which generally teach administration of specific antigens, would lead one of ordinary skill to believe that only immunospecific molecules are suitable substitutes for the hapten of Lang. As such, if anything, these references teach away from modifying Lang's methods by administering HCl instead of a hapten or other immunospecific molecule. Therefore, the combination of all references would, if anything, lead one of ordinary skill away from modifying the teachings of Lang by administering HCl instead of a hapten. Accordingly, the references, alone or combined, do not render the claimed invention obvious.

CONCLUSION

In view of the above, Applicants respectfully maintain that claims are patentable and request that they be passed to issue. Applicants invite the Examiner to call the undersigned if any remaining issues might be resolved by telephone.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: August 15, 2008 By: /Kerry Taylor/

Kerry Taylor
Registration No. 43,947
Attorney of Record
Customer No. 20,995
(619) 235-8550

5795853
081408